

Amendments to the Claims

This listing of claims will replace all prior listings of claims in the application.

Listing of Claims

1.-3. (Canceled)

4. (Currently Amended) The oxide superconducting wire according to Claim 416, wherein the thickness of the intermediate layer is at least 10 nm.

5. (Canceled)

6. (Currently Amended) The oxide superconducting wire according to Claim 416, wherein the orientation— $(\Delta\Phi)$ of the cap layer is better than the orientation— $(\Delta\Phi)$ of the intermediate layer.

7. (Currently Amended) The oxide superconducting wire according to Claim 416, wherein the thickness of the cap layer is no more than 5000 nm.

8. (Canceled)

9. (Canceled)

10. (Currently Amended) The oxide superconducting wire according to Claim 416, wherein the cap layer is formed at a rate higher than a rate at which the intermediate layer is formed.

11. (Currently Amended) The oxide superconducting wire according to Claim 416, wherein the cap layer is formed at a rate of 1 to 5000 nm/min.

12. (Currently Amended) The oxide superconducting wire according to Claim 16, wherein the cap layer is formed at a PLD laser energy density of 1 to 5 J/cm².

13. (Currently Amended) The oxide superconducting wire according to Claim 16, wherein the oxide superconducting film is a Y123 phase, Sm123 phase, or Nd123 phase.

14. (Currently Amended) The oxide superconducting wire according to Claim 16, wherein the oxide superconducting film is formed by a pulsed laser deposition method—~~PLD method~~ or a metal organic deposition method—~~MOD method~~.

15. (Currently Amended) The oxide superconducting wire according to Claim 16, wherein the metal substrate is composed of a material selected from the group consisting of Hastelloy, stainless steel, nickel alloys, silver, and silver alloys.

16. (New) An oxide superconducting wire composed of a metal substrate, an intermediate layer vapor-deposited by ion beam assisted deposition on the metal substrate, a CeO₂ cap layer formed by pulsed layer deposition on the intermediate layer and an oxide superconducting film formed on the cap layer, wherein the thickness of the intermediate layer is no more than 1000 nm, the thickness of the cap layer is at least 50 nm, the orientation of the intermediate layer is at least 10 degrees and the orientation of the cap layer is no more than 10 degrees.

17. (New) The oxide superconducting wire according to Claim 16, wherein the oxide superconducting film comprises a REBa₂Cu₃O_{7-x} based superconductor, wherein RE is a rare earth element.

18. (New) The oxide superconducting wire according to Claim 16, wherein the intermediate layer is composed of a material selected from the group consisting of $Gd_2Zr_2O_7$, yttrium-stabilized zirconium and MgO .